

## CLAIMS

2 We claim:

3        1. A locking apparatus for a gooseneck trailer hitch, the gooseneck trailer  
4        hitch having a tubular sheathing member, a stationary plate fixedly attached to the  
5        sheathing member, the stationary plate having a cavity for receiving a hitch ball  
6        and a flange with a first aperture for receiving a latch pin, a lock plate pivotally  
7        connected to the stationary plate, the lock plate having a second aperture for  
8        receiving a hitch ball, a retainer bracket fixedly attached to the lock plate, the  
9        retainer bracket having a central opening in which the flange of the stationary  
10      plate is slidably disposed, the retainer bracket further having a third aperture for  
11      receiving a latch pin, a handle guide depending from the sheathing member, a  
12      handle slidably disposed in the handle guide, the handle having a latch pin capable  
13      of insertion into the first aperture of the stationary plate and the third aperture of  
14      the retainer bracket to immobilize the lock plate in a closed position in which the  
15      second aperture of the lock plate is partially misaligned with the cavity of the  
16      stationary plate such that a hitch ball is prevented from being inserted into or  
17      removed from the cavity, said locking apparatus comprising:

18 a lock pin having a shaft and an eyelet, said shaft being capable of insertion  
19 into the central opening of the retainer bracket; and

20 a lock having a hasp, said lock being positionable in a locked position in  
21 which said hasp captures said eyelet and the handle of the gooseneck trailer hitch;

22 wherein, when said lock is in said locked position, said shaft is not removable  
23 from the central opening of the retainer bracket and the lock plate is substantially  
24 immobilized in the closed position.

25           2. The locking apparatus of claim 1 wherein said shaft has a diameter of  
26           about 7/16 inch.

1                   3.       The locking apparatus of claim 1 wherein said shaft is substantially  
2 linear and has a length of about 4 inches.

3        4. The locking apparatus of claim 1 wherein said shaft comprises a bend,  
4        the retainer bracket further comprises a fourth aperture providing access into the  
5        central opening of the retainer bracket, and said shaft is insertable through the  
6        fourth aperture into the central opening of the retainer bracket such that said bend  
7        prevents removal of said shaft from the retainer bracket when said lock is in said  
8        locked position.

9

卷之三

1        5. A locking apparatus for a gooseneck trailer hitch, the gooseneck trailer  
2        hitch having a tubular sheathing member, a stationary plate fixedly attached to the  
3        sheathing member, the stationary plate having a cavity for receiving a hitch ball  
4        and a flange with a first aperture for receiving a latch pin, a lock plate pivotally  
5        connected to the stationary plate, the lock plate having a second aperture for  
6        receiving a hitch ball, a retainer bracket fixedly attached to the lock plate, the  
7        retainer bracket having a central opening in which the flange of the stationary  
8        plate is slidably disposed, the retainer bracket further having a third aperture for  
9        receiving a latch pin, a handle guide depending from the sheathing member, a  
10      handle slidably disposed in the handle guide, the handle having a latch pin capable  
11      of insertion into the first aperture of the stationary plate and the third aperture of  
12      the retainer bracket to immobilize the lock plate in a closed position in which the  
13      second aperture of the lock plate is partially misaligned with the cavity of the  
14      stationary plate such that a hitch ball is prevented from being inserted into or  
15      removed from the cavity, a cover plate depending from the sheathing member and  
16      enshrouding the handle guide, the cover plate having a first wall with a fourth  
17      aperture and a second wall with a fifth aperture generally aligned with the fourth  
18      aperture, said locking apparatus comprising:  
19            a lock pin having a shaft and an eyelet, said shaft being capable of insertion  
20      through the fourth and fifth apertures of the cover plate; and  
21            a lock having a hasp, said lock being positionable in a locked position in  
22      which said hasp captures said eyelet and the handle of the gooseneck trailer hitch;  
23            wherein, when said lock is in said locked position, said shaft is not removable  
24      from the fourth and fifth apertures of the cover plate and the lock plate is  
25      substantially immobilized in the closed position.

26        6. The locking apparatus of claim 5 wherein said shaft has a diameter of  
27      about 7/16 inch.

1           7. The locking apparatus of claim 5 wherein said shaft is substantially  
2 linear and has a length of about 6 inches.

3

1           8. A locking apparatus for a gooseneck trailer hitch, the gooseneck trailer  
2       hitch having a tubular sheathing member, a stationary plate fixedly attached to the  
3       sheathing member, the stationary plate having a cavity for receiving a hitch ball  
4       and a flange with a first aperture for receiving a latch pin, a lock plate pivotally  
5       connected to the stationary plate, the lock plate having a second aperture for  
6       receiving a hitch ball, a retainer bracket fixedly attached to the lock plate, the  
7       retainer bracket having a central opening in which the flange of the stationary  
8       plate is slidably disposed, the retainer bracket further having a third aperture for  
9       receiving a latch pin, a handle guide depending from the sheathing member, a  
10      handle slidably disposed in the handle guide, the handle having a latch pin capable  
11      of insertion into the first aperture of the stationary plate and the third aperture of  
12      the retainer bracket to immobilize the lock plate in a closed position in which the  
13      second aperture of the lock plate is partially misaligned with the cavity of the  
14      stationary plate such that a hitch ball is prevented from being inserted into or  
15      removed from the cavity, said locking apparatus comprising:  
16

17           a lock comprising a body and a hasp, said hasp being capable of insertion  
18      into the central opening of the retainer bracket adjacent the flange of the stationary  
19      plate such that the lock plate is substantially immobilized in the closed position.

20           9. The locking apparatus of claim 8 wherein said hasp is further capable  
21      of capturing the handle of the gooseneck trailer hitch.

22           10. The locking apparatus of claim 8 wherein said hasp comprises a pair of  
23      connected legs spaced apart by a width of about one inch, each of said legs having a  
24      diameter of about 7/16 inch, said hasp and said body defining an interior space  
25      having a length of about 1 3/4 inches when said lock is in its locked position.

26           11. The locking apparatus of claim 8 wherein said hasp comprises a pair of  
27      connected legs spaced apart by a width of about 1 1/4 inches, each of said legs having

1 a diameter of about 7/16 inch, said hasp and said body defining an interior space  
2 having a length of about 4  $\frac{1}{2}$  inches when said lock is in its locked position.  
3

1           12. A method of locking a gooseneck trailer hitch, the gooseneck trailer  
2       hitch having a tubular sheathing member, a stationary plate fixedly attached to the  
3       sheathing member, the stationary plate having a cavity for receiving a hitch ball  
4       and a flange with a first aperture for receiving a latch pin, a lock plate pivotally  
5       connected to the stationary plate, the lock plate having a second aperture for  
6       receiving a hitch ball, a retainer bracket fixedly attached to the lock plate, the  
7       retainer bracket having a central opening in which the flange of the stationary  
8       plate is slidably disposed, the retainer bracket further having a third aperture for  
9       receiving a latch pin, a handle guide depending from the sheathing member, a  
10      handle slidably disposed in the handle guide, the handle having a latch pin capable  
11      of insertion into the first aperture of the stationary plate and the third aperture of  
12      the retainer bracket to immobilize the lock plate in a closed position in which the  
13      second aperture of the lock plate is partially misaligned with the cavity of the  
14      stationary plate such that a hitch ball is prevented from being inserted into or  
15      removed from the cavity, said method comprising:

16            placing the lock plate in the closed position;

17            inserting a lock pin into the central opening of the retainer bracket, the lock  
18       pin having a shaft and an eyelet, said shaft being at least partially disposed within  
19       the central opening of the retainer bracket;

20            positioning the handle of the gooseneck trailer hitch in close proximity to  
21       said eyelet;

22            providing a lock having a hasp;

23            passing said hasp through said eyelet and the handle of the gooseneck trailer  
24       hitch; and

25            closing said hasp such that said shaft is not removable from the central  
26       opening of the retainer bracket and the lock plate is substantially immobilized in  
27       the closed position.

1        13. The method of claim 12 further comprising the step of forming a fourth  
2        aperture in the retainer bracket, said fourth aperture providing access into the  
3        central opening of the retainer bracket;

4        wherein said shaft comprises a bend; and

5        wherein said inserting step comprises inserting said shaft through said  
6        fourth aperture into the central opening of the retainer bracket such that said bend  
7        prevents removal of said shaft from the retainer bracket when said hasp is closed.

8

1           14. A method of locking a gooseneck trailer hitch, the gooseneck trailer  
2       hitch having a tubular sheathing member, a stationary plate fixedly attached to the  
3       sheathing member, the stationary plate having a cavity for receiving a hitch ball  
4       and a flange with a first aperture for receiving a latch pin, a lock plate pivotally  
5       connected to the stationary plate, the lock plate having a second aperture for  
6       receiving a hitch ball, a retainer bracket fixedly attached to the lock plate, the  
7       retainer bracket having a central opening in which the flange of the stationary  
8       plate is slidably disposed, the retainer bracket further having a third aperture for  
9       receiving a latch pin, a handle guide depending from the sheathing member, a  
10      handle slidably disposed in the handle guide, the handle having a latch pin capable  
11      of insertion into the first aperture of the stationary plate and the third aperture of  
12      the retainer bracket to immobilize the lock plate in a closed position in which the  
13      second aperture of the lock plate is partially misaligned with the cavity of the  
14      stationary plate such that a hitch ball is prevented from being inserted into or  
15      removed from the cavity, and a cover plate depending from the sheathing member  
16      and enshrouding the handle guide, the cover plate having a first wall and a second  
17      wall, said method comprising:

18           forming a fourth aperture in the first wall of the cover plate;

19           forming a fifth aperture in the second wall of the cover plate, said fifth  
20      aperture being generally aligned with said fourth aperture;

21           placing the lock plate in the closed position;

22           providing a lock pin having a shaft and an eyelet;

23           inserting said shaft through said fourth and fifth apertures;

24           positioning the handle of the gooseneck trailer hitch in close proximity to  
25      said eyelet;

26           providing a lock having a hasp;

1 passing said hasp through said eyelet and the handle of the gooseneck trailer  
2 hitch; and

3 closing said hasp such that said shaft is not removable from said fourth and  
4 fifth apertures and the lock plate is substantially immobilized in the closed  
5 position.

6

1        15. A method of locking a gooseneck trailer hitch, the gooseneck trailer  
2        hitch having a tubular sheathing member, a stationary plate fixedly attached to the  
3        sheathing member, the stationary plate having a cavity for receiving a hitch ball  
4        and a flange with a first aperture for receiving a latch pin, a lock plate pivotally  
5        connected to the stationary plate, the lock plate having a second aperture for  
6        receiving a hitch ball, a retainer bracket fixedly attached to the lock plate, the  
7        retainer bracket having a central opening in which the flange of the stationary  
8        plate is slidably disposed, the retainer bracket further having a third aperture for  
9        receiving a latch pin, a handle guide depending from the sheathing member, a  
10      handle slidably disposed in the handle guide, the handle having a latch pin capable  
11      of insertion into the first aperture of the stationary plate and the third aperture of  
12      the retainer bracket to immobilize the lock plate in a closed position in which the  
13      second aperture of the lock plate is partially misaligned with the cavity of the  
14      stationary plate such that a hitch ball is prevented from being inserted into or  
15      removed from the cavity, said method comprising:  
16              placing the lock plate in the closed position;  
17              providing a lock having a hasp;  
18              inserting said hasp into the central opening of the retainer bracket adjacent  
19      the flange of the stationary plate; and  
20              closing said hasp such that the lock plate is substantially immobilized in the  
21      closed position.

22